STIPULATIONS	
	AIR QUALITY
	All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower shall not emit more than 2 grams of NO <sub>x</sub> per horsepower-hour.
	<b>Exception:</b> This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
	Modification: None
<b>UT-S-01</b>	Waiver: None
	AND
	All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gram of NO <sub>x</sub> per horsepower-hour.
	Exception: None
	Modification: None
	Waiver: None
	TIMING LIMITATION – 30% SLOPES OR GREATER –
	BOOKCLIFFS
	No surface-disturbing activities are allowed from <b>November 1 to April 30</b> where slopes are greater than 30% in the Bookcliffs to minimize watershed damage in fragile soils on steep slopes. This restriction includes heavy equipment traffic on existing roads associated with drilling operations.
TUT C 100	<b>Exception:</b> An exception could be granted if the operator can provide a plan of
UT-S-108	development demonstrating that the proposed action would be properly designed and constructed to support the anticipated types and levels of use. Roads must be designed to meet BLM road standards for drainage control and
	surfaced to support heavy equipment and tractor trailers. Adjustments to the
	timing restriction could be considered by the authorized officer on a case-by-
	case basis, depending on current soil and weather conditions.
	Modification: None
	Waiver: None

STIPULATIONS	
UT-S-109	TIMING LIMITATION – FRAGILE SOILS – MANCOS SHALE  No surface-disturbing activities allowed during December 1 to May 31 to minimize watershed damage including compaction, rutting, and topsoil loss on saline soils derived from the Mancos Shale. This restriction includes heavy equipment traffic on existing roads associated with drilling operations.  Exception: An exception could be granted if the operator can provide a plan of development demonstrating that the proposed action would be properly designed and constructed to support the anticipated types and levels of use. Roads must be designed to meet BLM road standards for drainage control and surfaced to support heavy equipment and tractor trailers. Adjustments to the timing restriction could be considered by the authorized officer on a case-bycase basis, depending on current soil and weather conditions.  Modification: None  Waiver: None
UT-S-122	NO SURFACE OCCUPANCY – FLOODPLAINS, RIPARIAN AREAS, SPRINGS AND PUBLIC WATER RESOURCES  No surface-disturbing activities within 100 year floodplains or within 100 meters of riparian areas. Also, no surface-disturbing activities within public water reserves or within 100 meters of springs.  Exception: An exception could be authorized if: (a) there are no practical alternatives, (b) impacts could be fully mitigated, or (c) the action is designed to benefit and enhance the resource values.  Modification: None  Waiver: None
UT-S-167	CONTROLLED SURFACE USE – VRM II SCENIC DRIVING CORRIDORS HIGHWAYS 128, 279, 313,NORTH US 191; NEEDLES ANTICLINE AND KANE CREEK ROADS  Surface-disturbing activities within scenic driving corridors must meet VRM II class objectives within 0.5 miles of the scenic driving corridors.  Exception: An exception could be granted if: (a) a viewshed analysis indicates no impairment of the visual resources from the driving corridor or (b) the action is determined to be consistent and compatible with protection or enhancement of the resource values or the use would provide suitable opportunities for public enjoyment of these resources.  Modification: None  Waiver: None
UT-S-224	TIMING LIMITATION – PRONGHORN FAWNING GROUNDS  No surface-disturbing activities from May 1 to June 15 within Cisco Desert and Hatch Point pronghorn fawning grounds to minimize stress and disturbance during critical pronghorn birthing time.

	STIPULATIONS	
	<b>Exception:</b> May be granted to these dates by the authorized officer if the operator submits a plan which demonstrates that impacts from the proposed action can be adequately mitigated or if it is determined the habitat is not being utilized for fawning in any given year.	
	<b>Modification:</b> The authorized officer may modify the boundaries of the stipulation area if a portion of the area is not being used as fawning grounds or if habitat is being utilized outside of stipulation boundaries as crucial fawning grounds and needs to be protected.	
	<b>Waiver:</b> May be granted if the fawning grounds are determined to be unsuitable or unoccupied and there is no reasonable likelihood of future use of the fawning grounds.	
	TIMING LIMITATION – CRUCIAL DEER AND ELK WINTER RANGE	
	No surface disturbing activities from <b>November 15 to April 15</b> within crucial deer and/or elk winter range to minimize stress and disturbance to deer and elk during critical winter months.	
	<b>Exception:</b> This stipulation does not apply to the maintenance and operation of existing and ongoing facilities. An exception may be granted by the authorized	

UT-S-229

existing and ongoing facilities. An exception may be granted by the authorized officer if the operator submits a plan which demonstrates that impacts from the proposed action can be adequately mitigated or it is determined the habitat is not being utilized during the winter period for any given year.

**Modification:** The authorized officer may modify the boundaries of the stipulation area (1) if a portion of the area is not being used as winter range by deer/elk or (2) if habitat is being utilized outside of stipulation boundaries as winter range and needs to be protected or (3) if the migration patterns have changed causing a difference in the season of use.

**Waiver:** May be granted if the winter range habitat is unsuitable or unoccupied during winter months by deer/elk and there is no reasonable likelihood of future winter range use.

STIPULATIONS	
UT-S-272	CONDITIONAL SURFACE USE/TIMING LIMITATION – BURROWING OWL AND FERRUGINOUS HAWK NESTING  No surface disturbances or occupancy will be conducted during the breeding and nesting season (March 1 to August 31 for burrowing owl and March 1 – August 1 for ferruginous hawk) within spatial buffers (0.25 mile for burrowing owl and 0.5 mile for ferruginous hawk) of known nesting sites.  Exception: An exception would be granted if protocol surveys determine that nesting sites, breeding territories, and winter roosting areas are not occupied.  Modification: The authorized officer may modify the boundaries of the stipulation area if portions of the area do not include habitat or are outside the current defined area, as determined by the BLM.  Waiver: May be granted if it is determined the habitat no longer exists or has been destroyed.
UT-S-273	CONDITIONAL SURFACE USE/TIMING LIMITATION – GOLDEN EAGLE NESTING SITES AND TERRITORIES  No surface-disturbing activities will be allowed within a 0.5 miles radius of documented Golden Eagle nest sites within nesting territories from February 1 to July 15th or until fledgling and dispersal of young. Any access created by the action will be outside of nesting season and will be eliminated once action is complete.  Exception: An exception may be granted by the authorized officer if authorization is obtained from USFWS and UDWR. The authorized officer may also grant an exception if an environmental analysis indicates that the nature or the conduct of the actions, as proposed or conditioned, would not impair the primary constituent element determined necessary for the survival and recovery of the Golden Eagle.  Modification: The authorized officer may modify the boundaries of the stipulation area if an environmental analysis indicates and USFWS and UDWR determine a portion of the area is not being used as Golden Eagle nesting territories.  Waiver: A waiver may be granted if an individual Golden Eagle nest has been inactive (unoccupied) for at least a period of 3 years. Nest-monitoring data for a 3-year period would be required before the waiver could be granted.
UT-S-275	CONTROLLED SURFACE USE /TIMING LIMITATION – BALD EAGLES  Bald eagles would be protected as outlined in the Bald Eagle Protection Act of 1940 (16 U.S.C. 668-668d, 54 Stat. 250, as amended). Activities on BLM lands that contain nesting or winter roosting habitat for the Bald Eagle would be avoided or restricted, depending on the duration and timing of the activity. Bald eagles would be managed according to the Best Management Practices for Raptors and their Associated Habitats in Utah (BLM 2006c). These

#### **STIPULATIONS**

management requirements would include restrictions and avoidance measures, including required surveys prior to activity, possible monitoring during the activity, implementation of seasonal and spatial buffers during the breeding season (January 1–August 31), and avoidance of disturbance in riparian areas unless impracticable. No future ground-disturbing activities would be authorized within a 1.0-mile radius of known Bald Eagle nest sites year-round. Deviations may be allowed only after appropriate levels of consultation and coordination with the USFWS/UDWR. In addition, no permanent aboveground structures would be allowed within a 0.50-mile radius of a winter roost site if the structure would result in the habitat becoming unsuitable for future winter roosting by Bald Eagles.

These requirements would help to mitigate the adverse impacts of human disturbance on Bald Eagles during breeding and roosting seasons.

- 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individual(s), and be conducted according to protocol.
- 2. Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures would be evaluated.
- 3. Water production will be managed to ensure maintenance or enhancement of riparian habitat.
- 4. Temporary activities within 1.0 mile of nest sites will not occur during the breeding season of **January 1 to August 31**, unless the area has been surveyed according to protocol and determined to be unoccupied.
- 5. Temporary activities within O.5 miles of winter roost areas, e.g., cottonwood galleries, will not occur during the winter roost season of **November 1 to March 31**, unless the area has been surveyed according to protocol and determined to be unoccupied.
- 6. No permanent infrastructure will be placed within 1.0 mile of nest sites.
- 7. No permanent infrastructure will be placed within 0.5 miles of winter roost areas.
- 8. Remove big game carrion within 100 feet of lease roadways occurring within Bald Eagle foraging range.
- 9. Avoid loss or disturbance to large cottonwood gallery riparian habitats.
- 10. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable habitat. Utilize direction drilling to avoid direct impacts to large cottonwood gallery riparian habitats. Ensure that such direction drilling does not intercept or degrade alluvial aquifers.
- 11. All areas of surface disturbance within riparian areas and/or adjacent uplands should be re-vegetated with native species.

STIPULATIONS	
	Additional measures may also be employed to avoid or minimize effects to the species between the lease stage and lease development stage. These additional measures will be developed and implemented in coordination with the USFWS/UDWR to ensure continued compliance with the Bald Eagle Protection Act.
	<b>Exception:</b> An exception may be granted by the authorized officer if authorization is obtained from USFWS/UDWR. The authorized officer may also grant an exception if an analysis indicates that the nature of the conduct of the actions, as proposed or conditioned, would not impair the habitat and physical requirements determined necessary for the survival of the Bald Eagles.
	<b>Modification:</b> The authorized officer may modify the boundaries of the stipulation area if an analysis indicates, and USFWS/UDWR determines that a portion of the area is not being used as Bald Eagle nesting or roosting territories or if additional nesting or roosting territories are identified.
	<b>Waiver:</b> May be granted if there is no reasonable likelihood of site occupancy over a minimum 10 year period.
	CONDITIONAL SURFACE USE – KIT FOX
UT-S-298	No surface disturbances within 200 meters of a kit fox den. <b>Exception:</b> An exception could be granted if protocol surveys determine that kit fox dens are not present.
	<b>Modification:</b> The authorized officer may modify the stipulation area if portions of the area do not contain habitat.
	Waiver: A waiver may be granted if it is determined that the habitat no longer exists.
UT-S-317	UNIT JOINDER  The successful bidder will be required to join the Crescent Unit Agreement or show reason why a joinder should not be required.

STIPULATIONS	
	CONTROLLED SURFACE USE – CULTURAL RESOURCES (SITES, STRUCTURES, OBJECTS, AND TRADITIONAL USE AREAS)
UT-S-322	Protective measures will be established and implemented for sites, structures, objects, and traditional use areas that are important to tribes with historical and cultural connections to the land, in order to maintain the view shed and intrinsic values, as well as the auditory, visual, and esthetic settings of the resources. Protection measures for undisturbed cultural resources and their natural settings will be developed in compliance with regulatory mandates and Native American consultation.
	<b>Exceptions:</b> An exception could be granted if the BLM authorized officer determines that avoidance of direct and indirect impacts to historic properties is not feasible (e.g. avoidance may cause unacceptable damage to other public land resources or affect valid existing rights). <b>Modification:</b> None
	Waiver: None
	<b>Purpose:</b> Protect and preserve cultural resources, sites, structures, objects and traditional use areas of religious significance to Native Americans.
UT-S-329	CONTROLLED SURFACE USE – SLOPES GREATER THAN 30%  No surface-disturbing activities are allowed on slopes greater than 30% to minimize watershed damage throughout the Moab Planning Area in fragile soils. This restriction includes heavy equipment traffic on existing roads associated with drilling operations.
	<b>Purpose:</b> To minimize watershed damage in fragile soils on steep slopes. <b>Exception:</b> An exception could be granted if the operator can provide a plan of development demonstrating that the proposed action would be properly designed and constructed to support the anticipated types and levels of use. Roads must be designed to meet BLM road standards for drainage control and surfaced to support heavy equipment and tractor trailers. Adjustments to the timing restriction could be considered by the Authorized Officer on a case-by-case basis, depending on current soil and weather conditions.
	Modification: None Waiver: None
	CONTROLLED SURFACE USE/TIMING LIMITATION – MEXICAN
UT-S-340	SPOTTED OWL HABITAT AND NEST SITES  In areas that contain suitable habitat for MSO or designated Critical Habitat, actions will be avoided or restricted that may cause stress and disturbance during nesting and rearing of their young. Appropriate measures will depend on whether the action is temporary or permanent and whether it occurs within or outside the owl nesting season. A temporary action is completed prior to the following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one

#### **STIPULATIONS**

breeding season and/or causes a loss of owl habitat or displaces owls through disturbances, i.e., creation of a permanent structure. Current avoidance and minimization measures include the following:

- 1. Surveys will be required prior to implementation of the proposed action. All surveys must be conducted by qualified individual(s) acceptable to the BLM.
- 2. Assess habitat suitability for both nesting and foraging using accepted habitat models in conjunction with field reviews. Apply the conservation measures below if project activities occur within 0.5 mile of suitable owl habitat. Determine potential effects of actions to owls and their habitat.
  - Document type of activity, acreage and location of direct habitat impacts, type and extent of indirect impacts relative to location of suitable owl habitat.
  - b. Document if action is temporary or permanent.
- 3. Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated, and, if necessary, Section 7 consultation reinitiated.
- 4. Any activity that includes water production will be managed to ensure maintenance or enhancement of riparian habitat.
- 5. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in canyon habitat suitable for MSO nesting.
- 6. For all temporary actions that may impact owls or suitable habitat:
  - a. If the action occurs entirely outside of the owl breeding season from **March 1 through August 31**, and leaves no permanent structure or permanent habitat disturbance, the action can proceed without an occupancy survey.
  - b. If the action will occur during a breeding season, a survey for owls is required prior to commencing the activity. If owls are found, the activity shall be delayed until outside of the breeding season.
  - c. Rehabilitate access routes created by the project through such means as raking out scars, re-vegetation, gating access points, etc.
- 7. For all permanent actions that may impact owls or suitable habitat:
  - a. Survey two consecutive years for owls according to accepted protocol prior to commencing activities.
  - b. If owls are found, no disturbing actions will occur within 0.5 mile of an identified site. If nest site is unknown, no activity will occur within the designated current and historic Protected Activity Center (PAC).
  - c. Avoid permanent structures within 0.5 mile of suitable habitat unless surveyed and not occupied.

#### **STIPULATIONS**

- d. Reduce noise emissions (e.g., use hospital-grade mufflers) to 45 dBA at 0.5 mile from suitable habitat, including canyon rims. Placement of permanent noise-generating facilities should be contingent upon a noise analysis to ensure noise does not encroach upon a 0.5 mile buffer for suitable habitat, including canyon rims.
- e. Limit disturbances to and within suitable habitat by staying on designated and/or approved routes.
- f. Limit new access routes created by the project.

Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the U.S. Fish and Wildlife Service between the lease sale stage and lease development stage to ensure continued compliance with the ESA.

Modifications to the Surface Use Plan of Operations may be required in order to protect the MSO and/or habitat in accordance with Section 6 of the lease terms, the Endangered Species Act, and the regulations at 43 CFR 3101.1-2.

**Exception**: An exception may be granted by the Authorized Officer if authorization is obtained from USFWS (through applicable provisions of the ESA). The Authorized Officer may also grant an exception if an environmental analysis indicates that the nature or the conduct of the actions would not impair the primary constituent element determined necessary for the survival and recovery of the MSO and USFWS concurs with this determination.

**Modification**: The Authorized Officer may modify the boundaries of the stipulation area if an environmental analysis indicates and USFWS (through applicable provisions of the ESA) determines a portion of the area is not being used as Critical Habitat.

**Waiver**: A waiver may be granted if the MSO is de-listed and the Critical Habitat is determined by USFWS as not necessary for the survival and recovery of the MSO.

#### CONTROLLED SURFACE USE/TIMING LIMITATION – SOUTHWESTERN WILLOW FLYCATCHER HABITAT

UT-S-341

In areas that contain riparian habitat within the range for the Southwestern willow flycatcher, actions will be avoided or restricted that may cause stress and disturbance during nesting and rearing of their young. Appropriate measures will depend on whether the action is temporary or permanent, and whether it occurs within or outside the nesting season. A temporary action is completed prior to the following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding season and/or causes a loss of habitat or displaces flycatchers through disturbances, i.e., creation of a permanent structure. The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures, will

#### **STIPULATIONS**

facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage.

Current avoidance and minimization measures include the following:

- 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individual(s) and be conducted according to protocol.
- 2. Activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated.
- 3. Water production will be managed to ensure maintenance or enhancement of riparian habitat.
- 4. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable riparian habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers.
- 5. Activities will maintain a 300 feet buffer from suitable riparian habitat year long.
- 6. Activities within 0.25 mile of occupied breeding habitat will not occur during the breeding season of **May 1 to August 15**
- 7. Ensure that water extraction or disposal practices do not result in change of hydrologic regime that will result in loss or degradation of riparian habitat.
- 8. Re-vegetate with native species all areas of surface disturbance within riparian areas and/or adjacent land.

Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the USFWS between the lease sale stage and lease development stage to ensure continued compliance with the ESA.

**Exception:** An exception may be granted by the Authorized Officer if authorization is obtained from USFWS (through applicable provisions of the ESA). The Authorized Officer may also grant an exception if an environmental analysis indicates that the nature of the conduct of the actions, as proposed or conditioned, will not impair the primary constituent element determined necessary for the survival and recovery of the southwestern willow flycatcher and USFWS concurs with this determination.

**Modification:** The Authorized Officer may modify the boundaries of the stipulation area if an environmental analysis indicates, and USFWS (through applicable provisions of the ESA) determines that a portion of the area is not being used as southwestern willow flycatcher habitat.

Waiver: May be granted if the southwestern willow flycatcher is de-listed and

STIPULATIONS	
	if USFWS determines it is not necessary for the survival and recovery of the southwestern willow flycatcher.

NOTICES	
UT-LN-15	PRONGHORN FAWNING  The lessee/operator is given notice that lands in this lease have been identified as containing antelope fawning habitat. Exploration, drilling and other development activities may be restricted from May 1 through June 15 to protect antelope fawning. Modifications may be required in the Surface Use Plan of Operations including seasonal timing restrictions to protect the species and its habitat.
UT-LN-21	BIGHORN SHEEP HABITAT  The Lessee/Operator is given notice that the lands in this parcel contains habitat for desert bighorn sheep. Modifications to the surface use plan may be required in order to protect habitat from surface disturbing activities. These modifications may include such measures as timing restrictions to avoid surface use in bighorn sheep habitat during the crucial season (April 15 – June 15). Measure may also include avoidance of certain areas such as water sources and talus slopes.
UT-LN-25	WHITE-TAILED AND GUNNISON PRAIRIE DOG  The lessee/operator is given notice that this lease parcel has been identified as containing white-tailed or Gunnison prairie dog habitat. Modifications to the Surface Use Plan of Operations may be required in order to protect white-tailed or Gunnison prairie dog from surface disturbing activities in accordance with the Endangered Species Act and 43 CFR 3101.1-2.
UT-LN-44	RAPTORS  Appropriate seasonal and spatial buffers shall be placed on all known raptor nests in accordance with Utah Field Office Guidelines for Raptor Protection from Human and Land use Disturbances (USFWS 2002) and Best Management Practices for Raptors and their Associated Habitats in Utah (BLM 2006). All construction related activities will not occur within these buffers if preconstruction monitoring indicates the nests are active, unless a site specific evaluation for active nests is completed prior to construction and if a BLM wildlife biologist, in consultation with USFWS and UDWR, recommends that activities may be permitted within the buffer. The BLM will coordinate with the USFWS and UDWR and have a recommendation within 3-5 days of notification. Any construction activities authorized within a protective (spatial and seasonal) buffer for raptors will require an on-site monitor. Any indication that activities are adversely affecting the raptor and/or its' young the on-site monitor will suspend activities and contact the BLM Authorized Officer immediately. Construction may occur within the buffers of inactive nests. Construction activities may commence once monitoring of the active nest site determines that fledglings have left the nest and are no longer dependent on the nest site. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.

	NOTICES	
UT-LN-45	MIGRATORY BIRD  The lessee/operator is given notice that surveys for nesting migratory birds may be required during migratory bird breeding season whenever surface disturbances and/or occupancy is proposed in association with fluid mineral exploration and development within priority habitats. Surveys should focus on identified priority bird species in Utah. Field surveys will be conducted as determined by the authorized officer of the Bureau of Land Management. Based on the result of the field survey, the authorized officer will determine appropriate buffers and timing limitations.	
UT-LN-49	UTAH SENSITIVE SPECIES  The lessee/operator is given notice that no surface use or otherwise disruptive activity would be allowed that would result in direct disturbance to populations or individual special status plant and animal species, including those listed on the BLM sensitive species list and the Utah sensitive species list. The lessee/operator is also given notice that lands in this parcel have been identified as containing potential habitat for species on the Utah Sensitive Species List. Modifications to the Surface Use Plan of Operations may be required in order to protect these resources from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, Migratory Bird Treaty Act and 43 CFR 3101.1-2.	
UT-LN-65	OLD SPANISH TRAIL  The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. Coordination with the National Park Service may be necessary.	
UT-LN-67	HISTORICAL AND CULTURAL RESOURCE VALUES  The lessee/operator is given notice that lands in this lease may contain significant Historical and Cultural Resources. Modifications to the Surface Use Plan of Operations may be required for the protection of these resources.	
UT-LN-68	NOTIFICATION & CONSULTATION REGARDING CULTURAL RESOURCES  The lease area may now or hereafter be found to contain historic properties and/or resources protected under the National Historic Preservation Act (NHPA), the Archaeological Resources Protections Act (ARPA), the Native American Graves Protection and Repatriation Act (NAGPRA), the American Indian Religious Freedom Act (AIRFA), other statues and Executive Order 13007, and which may be of concern to Native American tribes, interested parties, and the State Historic Preservation Officer (SHPO). BLM will not approve any ground disturbing activities as part of future lease operations until it completes applicable requirements of the National Historic Preservation Act	

	NOTICES	
	(NHPA), including the completion of any required procedure for notification and consultation with appropriate tribe(s) and/or the SHPO. BLM may require modifications to exploration and development proposals to further its conservation and management objectives on BLM-approved activities that are determine to affect or impact historic or cultural properties and/or resources.	
	HIGH POTENTIAL FOR CULTURAL RESOURCES	
UT-LN-69	This parcel is located in an area of high concentrations of cultural resources. Known cultural sites are fragile and many are buried under sandy deposits which migrate due to their susceptibility to wind. These sites, or large portions, are not visible from the surface. Therefore, the following mitigation measures may be applied to any surface disturbance of this parcel: 1) pre-surface disturbance cultural resource inventories; 2) pre-surface disturbance subsurface testing; 3) monitoring of ground disturbance; and 4) post-disturbance monitoring identifying resources as the soils stabilize around a project.	
	HIGH POTENTIAL FOR CULTURAL RESOURCE OCCURRENCE	
UT-LN-70	The lessee/operator is given notice that lands in this lease contain significant Cultural Resources. Modifications to the Surface Use Plan of Operations may be required for the protection of these resources. Class III level block inventories may be required to determine resource location and possible impact to the resource.	
	HIGH POTENTIAL PALEONTOLOGICAL RESOURCES	
UT-LN-72	The lessee/operator is given notice that lands in this lease have been identified as having high potential for paleontological resources. Planned projects should be consistent with BLM Manual and Handbook H8270-1, Chapter III (A) and III (B) to avoid areas where significant fossils are known or predicted to occur or to provide for other mitigation of possible adverse effects (RX, NF, ESR). Modifications to the Surface Use Plan of Operations may be required in order to protect paleontological resources from surface disturbing activities in accordance with Section 6 of the lease terms and 43 CFR 3101.1-2.	
	AIR QUALITY MITIGATION MEASURES	
UT-LN-96	The lessee is given notice that the Bureau of Land Management (BLM) in coordination with the U.S. Environmental Protection Agency and the Utah Department of Air Quality, among others, has developed the following air quality mitigation measures that may be applied to any development proposed on this lease. Integration of and adherence to these measures may help minimize adverse local or regional air quality impacts from oil and gas development (including but not limited to construction, drilling, and production) on regional ozone formation.  • All internal combustion equipment would be kept in good working order.  • Water or other approved dust suppressants would be used at construction sites and along roads, as determined appropriate by the Authorized	

	NOTICES	
	<ul> <li>Officer.</li> <li>Open burning of garbage or refuse would not occur at well sites or other facilities.</li> <li>Drill rigs would be equipped with Tier II or better diesel engines.</li> <li>Vent emissions from stock tanks and natural gas TEG dehydrators would be controlled by routing the emissions to a flare or similar control device which would reduce emissions by 95% or greater.</li> <li>Low bleed or no bleed pneumatics would be installed on separator dump valves and other controllers.</li> <li>During completion, flaring would be limited as much as possible. Production equipment and gathering lines would be installed as soon as possible.</li> <li>Well site telemetry would be utilized as feasible for production operations.</li> <li>Stationary internal combustion engine would comply with the following standards: 2g NOx/bhp-hr for engines &lt;300HP; and 1g NOx/bhp-hr for engines &gt;300HP.</li> <li>Additional site-specific measures may also be employed to avoid or minimize effects to local or regional air quality. These additional measures will be developed and implemented in coordination with the U.S. Environmental Protection Agency, the Utah Department of Air Quality, and other agencies with expertise or jurisdiction as appropriate based on the size of the project and</li> </ul>	
	magnitude of emissions.  REGIONAL OZONE FORMATION CONTROLS	
UT-LN-99	To mitigate any potential impact oil and gas development emissions may have on regional ozone formation, the following Best Management Practices (BMPs) would be required for any development projects:  • Tier II or better drilling rig engines  • Stationary internal combustion engine standard of 2g NOx/bhp-hr for engines <300HP and 1g NOx/bhp-hr for engines >300HP  • Low bleed or no bleed pneumatic pump valves  • Dehydrator VOC emission controls to +95% efficiency  • Tank VOC emission controls to +95% efficiency	
	AIR QUALITY ANALYSIS	
UT-LN-102	The lessee/operator is given notice that prior to project-specific approval, additional air quality analyses may be required to comply with the National Environmental Policy Act, Federal Land Policy Management Act, and/or other applicable laws and regulations. Analyses may include dispersion modeling for deposition and visibility impacts analysis, control equipment determinations, and/or emission inventory development. These analyses may result in the imposition of additional project-specific air quality control measures.	

#### THREATENED & ENDANGERED SPECIES

#### **MEXICAN SPOTTED OWL**

The Lessee/Operator is given notice that the lands in this parcel contain suitable habitat for Mexican spotted owl, a federally listed species. The Lessee/Operator is given notice that the lands in this lease contain Designated Critical Habitat for the Mexican spotted owl, a federally listed species. Critical habitat was designated for the Mexican spotted owl on August 31, 2004 (69 FR 53181-53298). Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend whether the action is temporary or permanent, and whether it occurs within or outside the owl nesting season.

A <u>temporary</u> action is completed prior to the following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A <u>permanent</u> action continues for more than one breeding season and/or causes a loss of owl habitat or displaces owls through disturbances, i.e. creation of a permanent structure.

The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures, will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following:

**T&E-06** 

- 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s).
- 2. Assess habitat suitability for both nesting and foraging using accepted habitat models in conjunction with field reviews. Apply the conservation measures below if project activities occur within 0.5 mile of suitable owl habitat. Determine potential effects of actions to owls and their habitat.
  - a. Document type of activity, acreage and location of direct habitat impacts, type and extent of indirect impacts relative to location of suitable owl habitat.
  - b. Document if action is temporary or permanent.
- 3. Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated.
- 4. Water production will be managed to ensure maintenance or enhancement of riparian habitat.
- 5. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in canyon habitat suitable for Mexican spotted owl nesting.

#### **NOTICES** 6. For all temporary actions that may impact owls or suitable habitat: a. If the action occurs entirely outside of the owl breeding season (March 1 - August 31), and leaves no permanent structure or permanent habitat disturbance, action can proceed without an occupancy survey. b. If action will occur during a breeding season, survey for owls prior to commencing activity. If owls are found, activity must be delayed until outside of the breeding season. c. Rehabilitate access routes created by the project through such means as raking out scars, re-vegetation, gating access points, etc. 7. For all permanent actions that may impact owls or suitable habitat: a. Survey two consecutive years for owls according to accepted protocol prior to commencing activities. b. If owls are found, no actions will occur within 0.5 mile of identified nest site. If nest site is unknown, no activity will occur within the designated Protected Activity Center (PAC). c. Avoid drilling and permanent structures within 0.5 mi of suitable habitat unless surveyed and not occupied. d. Reduce noise emissions (e.g., use hospital-grade mufflers) to 45 dBA at 0.5 mile from suitable habitat, including canyon rims. Placement of permanent noise-generating facilities should be determined by a noise analysis to ensure noise does not encroach upon a 0.5 mile buffer for suitable habitat, including canyon rims. e. Limit disturbances to and within suitable habitat by staying on approved routes. f. Limit new access routes created by the project. Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the U.S. Fish and Wildlife Service between the lease sale stage and lease development stage to ensure continued compliance with the Endangered Species Act. **CALIFORNIA CONDOR** The Lessee/Operator is given notice that the lands located in this parcel contain potential habitat for the California Condor, a federally listed species. Avoidance or use restrictions may be placed on portions of the lease if the area is known or suspected to be used by condors. Application of appropriate measures will depend on whether the action is temporary or permanent, and whether it occurs T&E-11 within or outside potential habitat. A temporary action is completed prior to the following important season of use, leaving no permanent structures and resulting in no permanent habitat loss. This would include consideration for habitat functionality. A permanent action continues for more than one season of habitat use, and/or causes a loss of condor habitat function or displaces condors

repetitious maintenance, or emits disruptive levels of noise).

through continued disturbance (i.e. creation of a permanent structure requiring

#### **NOTICES**

The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following:

- 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s) approved by the BLM, and must be conducted according to approved protocol.
- 2. If surveys result in positive identification of condor use, all lease activities will require monitoring throughout the duration of the project to ensure desired results of applied mitigation and protection. Minimization measures will be evaluated during development and, if necessary, Section 7 consultation may be reinitiated.
- 3. Temporary activities within 1.0 mile of nest sites will not occur during the breeding season.
- 4. Temporary activities within 0.5 miles of established roosting sites or areas will not occur during the season of use, August 1 to November 31, unless the area has been surveyed according to protocol and determined to be unoccupied.
- 5. No permanent infrastructure will be placed within 1.0 mile of nest sites.
- 6. No permanent infrastructure will be placed within 0.5 miles of established roosting sites or areas.
- 7. Remove big game carrion 100 feet from lease roadways occurring within foraging range.
- 8. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable habitat. Utilize directional drilling to avoid direct impacts to large cottonwood gallery riparian habitats. Ensure that such directional drilling does not intercept or degrade alluvial aquifers.
- 9. Re-initiation of section 7 consultation with the Service will be sought immediately if mortality or disturbance to California condors is anticipated as a result of project activities. Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the U.S. Fish and Wildlife Service to ensure continued compliance with the ESA.

Additional measures may also be employed to avoid or minimize effects to the species between the lease sale and lease development stages. These additional measures will be developed and implemented in consultation with the U.S. Fish and Wildlife Service to ensure continued compliance with the Endangered

NOTICES	
	Species Act.